CHRONOLOGICAL INDEX—1995

Naval Engineers JOURNAL

VOLUME 107

✦ January

Vol. 107 No. 1

Page

Hybrid Expert Maintenance Advisory System for Naval Systems Applications
James H. Graham, Gregory Brockman and John Shea, Jr. 23

Vibration Alert Levels in Shipboard Machinery Condition Monitoring and Diagnostics
Y.S. Shin and C.S. Liu 35

Methodology for the Development of Reliability-Based Design Criteria for Surface Ship Structures
Bilal M. Ayyub, Ph.D., P.E., Jeffrey E. Beach and W. Thomas Packard 45

EMI Avoidance: A New Front in the EMI Battle
Stephen Valvonis, Lawrence T. Nosek and John M. Krawchuk 63

A Microcomputer Program for Post-Processing Side-Scan Sonar Data
C.A. Linder 69

Motor Current Signal Analysis for Diagnosis of Fault Conditions in Shipboard Equipment
Jonathan Adam Siegler, Antal A. Sarkady and Chris Nemarich 77

An Application of Fuzzy Logic Control to a Classical Military Tracking Problem
Erik S. Smith 99

✦ March

Vol. 107 No. 2

Computer-Aided Marine Propeller Inspection Data Analysis
David W. Allen, Albert F. Harsch and James D. Machin 33

Design, Analysis, Fabrication and Testing of a Composite Control Surface
Reid Phelan 41

A System Engineering Approach for the Design of the EHF Waveguide Aboard 688 Class Submarines
Lt. R.M. Francis, USN 57

✦ May

Vol. 107 No. 3

Weapons Structural Test Firing Aboard the USS *Arleigh Burke*
Jon W. Frederick and Richard E. Miller, Jr. 19

The Advanced Tomahawk Weapons Control System for Submarines
LCdr. Joseph S. Baehr, USN 35

Standard Flex Distributed Architecture Combat System
Cdr. sg Henrik Hornhaver, RDN 41

Shipboard Low Observable Antenna Concepts: Multiple Aperture Panel (MAP), Multiple Function Antenna (MFA)
William R. Bird, Wayne R. Harader, Dr. Thomas A. Metzler and Dr. Stan B. McMillan 49

The Patrol Coastal Cyclone Class: A Description of the Newest Addition to the U.S. Navy
Frank N. McCarthey, Joseph C. Mayer and Dennis J. Doyle 61

Trimaran Ships: The Configuration for the Frigate of the Future
Professor David Andrews, RCNC and Jun Wu Zhang 77

Acoustic Characteristics of T-AGOS 19 Class SWATH Ships
Kurt Yankaskas and Tom Slotwinski 95

Design Algorithms for Primary and Secondary Loads on SWATH Ships
Jerome P. Sikora 121

Waterjet versus Propeller Engine Matching Characteristics
Dr. Keith Alexander 129

Use of Navy External Combustion Engine Technology for Ultra High Altitude Aircraft Propulsion Systems
Anthony W. Duva 141

Modularity in HM&E Systems
Thomas H. Hane, Elizabeth Gauthier, Scott W. Lang and Tracy Joseph Valsi 149

A Comparison of French and U.S. Amphibious Ships: the TCD Foudre and the LSD 41
Larrie Ferreiro and Gerard Autret 167

Finite Element Analysis of the Quarter Scale Advanced Double Hull Design
Anthony Kee, Dr. Peter Matic, Iris Darby and James L. Rodd 185

Determination of Extreme Seas Encountered by Operational Ships
Peter B. Zahn and Michael Grim 197

A Surface Combatant for the 21st Century: The DDG 51 Flight IIA
Donald L. Ewing, Richard W. Holmes II, Brian Rochon, Joseph B. Daley and Todd T. Hellman 217

Laser-Based 3D Volumetric Display System (The Improved Second Generation)
Parviz Soltan, John Trias, Weldon Dahlke, Mark Lasher and Malvyn McDonald 233

Automated Opposing Forces for Training Simulations
Philip S. Anton, Kenneth L. McAdow, David B. Smith, Paul E. Lehner and Cdr. Michael A. Sharp 245

Investigating New Computing Technologies for Shipboard Combat Systems
Cdr. John W. Geary, USN and Michael W. Masters 253

LPD 17: In the Midst of Reform
Howard Fireman, Jim Fowler, John McIntire and Cdr. Jim Wilkins, USN 267

Page

Making Design Everybody's Job: the Warship Design Process
Capt. Barry Tibbitts, USN (Ret.) and Robert G. Keane, Jr. 283

Breaking the Ice of Acquisition Reform
Ens. Christopher Pesile, USN, Lee Hess and LCdr. John Tuttle, USCG 303

✦ July Vol. 107 No. 4

Computer Assisted Weld Evaluation
Lawrence M. Brown and Robert DeNale 179

Theory and Practice of Total Ship Survivability for Ship Design
Michael O. Said 191

✦ September Vol. 107 No. 5

Autonomic Ship Concept
Francis B. Ditizio, Scott B. Hoyle and Cdr. H.Lowe Pruitt, USN 19

Dual Use of Heavy Lift Ships as Maintenance Platforms and Transports for Mine Warfare Ships
Cdr. Richard D. Hepburn, USN 33

Intelligent Machinery Control Integration
Donald L. Fairhead and Charles C. Hall 51

NAVSEA Level of Repair Analysis (LORA) Software: Bridging the Gap from Policy Procedures to User Application
Judith A. Eliott-Brown and Scott W. McPherson 59

Numerical Study of Waterjet Inlet Pressure Distribution
Dr. Robert Latorre and T. Kawamura 67

Page

✦ November Vol. 107 No. 6

A Gas Turbine Condition Monitoring System
James R. Hardin, Ivan L. Howell, J. Richard Mirilovich, John J. Hartranft and David L. Schreder 23

Closed Cycle Gas Turbine Nuclear Power Plant for Submarine Propulsion
Capt. Michael J. Gouge, USNR 35

Commercial Technology and the AEGIS Program: Leadership in Innovative and Effective Solutions
Cdr. Paul Willis, USN 43

Optimizing Performance and Reliability of Automated Machinery Control Systems and Instrumentation
Bruce Marshall and Shawn Egnak 51

Pearl Harbor Naval Base's Donut-Free Bilge and Oily Wastewater Disposal Program
Lt. John R. Gensure, USN 65

Technology and Manning for Safe Ship Operations
Marc B. Wilson, D.Sc., C.P.E. and Michael E. Pollard, G.S.R. 79

Undersea Technologies in the Former Soviet Union
Michael J. DeHaemer, Ph.D. 85

AUTHOR INDEX—1995

Naval Engineers JOURNAL

Volume 107

	Month	Page
✦ A		
Alexander, Dr. Keith Waterjet versus Propeller Engine Matching Characteristics	MAY	129
Allen, David W. Computer-Aided Marine Propeller Inspection Data Analysis	MAR	33
Andrews, Prof. David, RCNC Trimaran Ships: The Configuration for the Frigate of the Future	MAY	77
Anton, Philip S. Automated Opposing Forces for Training Simulations	MAY	245
Autret, Gerard A Comparison of French and U.S. Amphibious Ships: the TCD Foudre and the LSD 41	MAY	167
Ayyub, Bilal M., Ph.D., P.E. Methodology for the Development of Reliability-Based Design Criteria for Surface Ship Structures	JAN	45
✦ B		
Baehr, LCdr. Joseph S., USN The Advanced Tomahawk Weapons Control System for Submarines	MAY	35
Beach, Jeffrey E. Methodology for the Development of Reliability-Based Design Criteria for Surface Ship Structures	JAN	45
Bird, William R. Shipboard Low Observable Antenna Concepts: Multiple Aperture Panel (MAP), Multiple Function Antenna (MFA)	MAY	49
Brockman, Gregory Hybrid Expert Maintenance Advisory System for Naval Systems Applications	JAN	23
Brown, Lawrence M. Computer Assisted Weld Evaluation	JUL	179
✦ D		
Dahlke, Weldon Laser-Based 3D Volumetric Display System (The Improved Second Generation)	MAY	233
Daley, Joseph B. A Surface Combatant for the 21st Century: The DDG 51 Flight IIA	MAY	217
Darby, Iris Finite Element Analysis of the Quarter Scale Advanced Double Hull Design	MAY	185
DeHaemer, Michael J. Ph.D. Undersea Technologies in the Former Soviet Union	NOV	85
DeNale, Robert Computer Assisted Weld Evaluation	JUL	179
Ditizio, Francis B. Autonomic Ship Concept	SEP	19
Doyle, Dennis J. The Patrol Coastal Cyclone Class: A Description of the Newest Addition to the U.S. Navy	MAY	61
Duva, Anthony W. Use of Navy External Combustion Engine Technology for Ultra High Altitude Aircraft Propulsion Systems	MAY	141
✦ E		
Egnak, Shawn Optimizing Performance and Reliability of Automated Machinery Control Systems and Instrumentation	NOV	51
Eliott-Brown, Judith A. NAVSEA Level of Repair Analysis (LORA) Software: Bridging the Gap from Policy Procedures to User Application	SEP	59
Ewing, Donald L. A Surface Combatant for the 21st Century: The DDG 51 Flight IIA	MAY	217
✦ F		
Fairhead, Donald L. Intelligent Machinery Control Integration	SEP	51
Ferreiro, Larrie A Comparison of French and U.S. Amphibious Ships: the TCD Foudre and the LSD 41	MAY	167
Fireman, Howard LPD 17: In the Midst of Reform	MAY	267
Fowler, Jim LPD 17: In the Midst of Reform	MAY	267
Francis, Lt. R.M., USN A System Engineering Approach for the Design of the EHF Waveguide Aboard 688 Class Submarines	MAR	57
Frederick, Jon W. Weapons Structural Test Firing Aboard the USS *Arleigh Burke*	MAY	19
✦ G		
Gauthier, Elizabeth Modularity in HM&E Systems	MAY	149
Geary, Cdr. John W., USN Investigating New Computing Technologies for Shipboard Combat Systems	MAY	253
Gensure, Lt. John R., USN Pearl Harbor Naval Base's Donut-Free Bilge and Oily Wastewater Disposal Program	NOV	65
Gouge, Capt. Michael J., USNR Closed Cycle Gas Turbine Nuclear Power Plant for Submarine Propulsion	NOV	35

	Month	Page
Graham, James H. Hybrid Expert Maintenance Advisory System for Naval Systems Applications	JAN	23
Grim, Michael Determination of Extreme Seas Encountered by Operational Ships	MAY	197

✦ H

Hall, Charles C. Intelligent Machinery Control Integration	SEP	51
Hane, Thomas H. Modularity in HM&E Systems	MAY	149
Harader, Wayne R. Shipboard Low Observable Antenna Concepts: Multiple Aperture Panel (MAP), Multiple Function Antenna (MFA)	MAY	49
Hardin, James R. A Gas Turbine Condition Monitoring System	NOV	23
Harsch, Albert F. Computer-Aided Marine Propeller Inspection Data Analysis	MAR	33
Hartranft, John J. A Gas Turbine Condition Monitoring System	NOV	23
Hellman, Todd T. A Surface Combatant for the 21st Century: The DDG 51 Flight IIA	MAY	217
Hepburn, Cdr. Richard D., USN Dual Use of Heavy Lift Ships as Maintenance Platforms and Transports for Mine Warfare Ships	SEP	33
Hess, Lee Breaking the Ice of Acquisition Reform	MAY	303
Holmes, Richard W. III. A Surface Combatant for the 21st Century: The DDG 51 Flight IIA	MAY	217
Hornhaver, Cdr. sg Henrik, RDN Standard Flex Distributed Architecture Combat System	MAY	41
Howell, Ivan L. A Gas Turbine Condition Monitoring System	NOV	23
Hoyle, Scott B. Autonomic Ship Concept	SEP	19

✦ K

Kawamura, T. Numerical Study of Waterjet Inlet Pressure Distribution	SEP	67
Keane, Robert G., Jr. Making Design Everybody's Job: the Warship Design Process	MAY	283
Kee, Anthony Finite Element Analysis of the Quarter Scale Advanced Double Hull Design	MAY	185
Krawchuk, John M. EMI Avoidance: A New Front in the EMI Battle	JAN	63

✦ L

Lang, Scott W. Modularity in HM&E Systems	MAY	149
Lasher, Mark Laser-Based 3D Volumetric Display System (The Improved Second Generation)	MAY	233
Latorre, Dr. Robert Numerical Study of Waterjet Inlet Pressure Distribution	SEP	67
Lehner, Paul E. Automated Opposing Forces for Training Simulations	MAY	245
Linder, C.A. A Microcomputer Program for Post-Processing Side-Scan Sonar Data	JAN	69
Liu, C.S. Vibration Alert Levels in Shipboard Machinery Condition Monitoring and Diagnostics	JAN	35

✦ M

Machin, James D. Computer-Aided Marine Propeller Inspection Data Analysis	MAR	33
Marshall, Bruce Optimizing Performance and Reliability of Automated Machinery Control Systems and Instrumentation	NOV	51
Masters, Michael W. Investigating New Computing Technologies for Shipboard Combat Systems	MAY	253
Matic, Dr. Peter Finite Element Analysis of the Quarter Scale Advanced Double Hull Design	MAY	185
Mayer, Joseph C. The Patrol Coastal Cyclone Class: A Description of the Newest Addition to the U.S. Navy	MAY	61
McAdow, Kenneth L. Automated Opposing Forces for Training Simulations	MAY	245
McCarthey, Frank N. The Patrol Coastal Cyclone Class: A Description of the Newest Addition to the U.S. Navy	MAY	61
McDonald, Malvyn Laser-Based 3D Volumetric Display System (The Improved Second Generation)	MAY	233
McIntire, John LPD 17: In the Midst of Reform	MAY	267
McMillan, Dr. Stan B. Shipboard Low Observable Antenna Concepts: Multiple Aperture Panel (MAP), Multiple Function Antenna (MFA)	MAY	248
McPherson, Scott W. NAVSEA Level of Repair Analysis (LORA) Software: Bridging the Gap from Policy Procedures to User Application	SEP	59
Metzler, Dr. Thomas A. Shipboard Low Observable Antenna Concepts: Multiple Aperture Panel (MAP), Multiple Function Antenna (MFA)	MAY	49
Miller, Richard E. Jr. Weapons Structural Test Firing Aboard the USS *Arleigh Burke*	MAY	19
Mirilovich, J. Richard A Gas Turbine Condition Monitoring System	NOV	23

✦ N

Nemarich, Chris Motor Current Signal Analysis for Diagnosis of Fault Conditions in Shipboard Equipment	JAN	77
Nosek, Lawrence T. EMI Avoidance: A New Front in the EMI Battle	JAN	63

	Month	Page
✦ P		
Packard, W. Thomas Methodology for the Development of Reliability-Based Design Criteria for Surface Ship Structures	JAN	45
Pesile, Ens. Christopher, USN Breaking the Ice of Acquisition Reform	MAY	303
Phelan, Reid Design, Analysis, Fabrication and Testing of a Composite Control Surface	MAR	41
Pollard, Michael E., G.S.R. Technology and Manning for Safe Ship Operations	NOV	79
Pruitt, Cdr. H. Lowe, USN Autonomic Ship Concept	SEP	19
✦ R		
Rochon, Brian A Surface Combatant for the 21st Century: The DDG 51 Flight IIA	MAY	217
Rodd, James L. Finite Element Analysis of the Quarter Scale Advanced Double Hull Design	MAY	185
✦ S		
Said, Michael O. Theory and Practice of Total Ship Survivability for Ship Design	JUL	191
Sharp, Cdr. Michael A. Automated Opposing Forces for Training Simulations	MAY	245
Shea, John Jr. Hybrid Expert Maintenance Advisory System for Naval Systems Applications	JAN	23
Shin, Y.S. Vibration Alert Levels in Shipboard Machinery Condition Monitoring and Diagnostics	JAN	35
Sarkady, Antal A. Motor Current Signal Analysis for Diagnosis of Fault Conditions in Shipboard Equipment	JAN	77
Schreder, David L. A Gas Turbine Condition Monitoring System	NOV	23
Siegler, Jonathan Adam Motor Current Signal Analysis for Diagnosis of Fault Conditions in Shipboard Equipment	JAN	77
Sikora, Jerome P. Design Algorithms for Primary and Secondary Loads on SWATH Ships	MAY	121
Slotwinski, Tom Acoustic Characteristics of T-AGOS 19 Class SWATH Ships	MAY	95
Smith, David B. Automated Opposing Forces for Training Simulations	MAY	245
Smith, Erik S. An Application of Fuzzy Logic Control to a Classical Military Tracking Problem	JAN	99
Soltan, Parviz Laser-Based 3D Volumetric Display System (The Improved Second Generation)	MAY	233
✦ T		
Tibbitts, Capt. Barry, USN (Ret.) Making Design Everybody's Job: the Warship Design Process	MAY	283
Trias, John Laser-Based 3D Volumetric Display System (The Improved Second Generation)	MAY	233
Tuttle, LCdr. John, USCG Breaking the Ice of Acquisition Reform	MAY	303
✦ V		
Valsi, Tracy Joseph Modularity in HM&E Systems	MAY	149
Valvonis, Stephen EMI Avoidance: A New Front in the EMI Battle	JAN	63
✦ W		
Wilkins, Cdr. Jim USN LPD 17: In the Midst of Reform	MAY	267
Willis, Cdr. Paul, USN Commercial Technology and the AEGIS Program: Leadership in Innovative and Effective Solutions	NOV	43
Wilson, Marc B., D.Sc., C.P.E. Technology and Manning for Safe Ship Operations	NOV	79
✦ Y		
Yankaskas, Kurt Acoustic Characteristics of T-AGOS 19 Class SWATH Ships	MAY	95
✦ Z		
Zahn, Peter B. Determination of Extreme Seas Encountered by Operational Ships	MAY	197
Zhang, Jun Wu Trimaran Ships: The Configuration for the Frigate of the Future	MAY	77

ADVERTISER'S INDEX

Caterpillar C-2
Gibbs & Cox, Inc. 12
John J. McMullen Associates, Inc. 11
M. Rosenblatt and Son 16
Noise Unlimited, Inc. 20
Seabury & Smith 1